



MISSOURI

DEPARTMENT OF NATURAL RESOURCES

DEPARTMENT OF PUBLIC SAFETY



Response to small fuel spills

Technical Bulletin
1/1998

DNR - Division of Environmental Quality
DPS - Division of Fire Safety

Local fire departments often respond to releases of small amounts of petroleum products. This technical bulletin is intended to provide fire departments with information regarding responses to these types of releases.

Missouri state law requires the responsible party (spiller) to report petroleum product releases greater than 50 gallons to the Missouri Department of Natural Resources (DNR) at (573) 634-2436 at the earliest practical moment upon discovery. If the release is from an underground storage tank, the reportable quantity is 25 gallons or more. Further, federal law requires the responsible party to report any release of oil if the oil reaches or threatens any waterway. The definition of waterway includes sewers, groundwater, wetlands, lakes, creeks, streams, rivers and areas that may not have running water in them at the time, such as road ditches that drain into other waterways.

In the past, small fuel spills were routinely addressed by "flushing" with either foam or water. Unfortunately, this manner of response often resulted in the fuel reaching a waterway, potentially causing a greater problem than the initial spill itself. While many fire departments realize that flushing may cause more problems than it solves, information regarding alternative cleanup methods may not be readily available. The following information is provided by the Missouri Department of Public Safety (DPS) and DNR as possible alternative response actions to small fuel spills.

NOTE: It is understood that public safety must be the first consideration in a response and that the following actions may not be the most appropriate in certain situations.

1. If possible, the spill of fuel should be contained and the release stopped. Sand, gravel, soil, straw, kitty litter, or other such materials may be effective in containing and/or absorbing fuel spills.

2. If fire hazard reduction measures are necessary, use foam as appropriate. Do not over apply. Use as little water on the spill as necessary.

3. Pump, recover, and containerize as much free product as possible. In many cases, recovered product can be routed back to refineries for recycling, or used for other purposes such as fire department training exercises. Another method of disposal is use in fuel blending operations; however, this is not a viable alternative if the fuel has been contaminated with large amounts of water. If the spilled fuel contains too much water to lend itself as a usable resource, it may have to be tested and disposed as a regulated hazardous waste.

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4. Apply sand, straw, sawdust, ground corn cobs, or commercial absorbents such as kitty litter or oil dry to absorb petroleum residues rather than wash them away with water. Absorbent materials used to clean up fuel spills may be disposed at a sanitary landfill with prior approval of the landfill operator. A technical bulletin detailing proper management of soil contaminated with virgin gasoline or virgin fuel oil is available from the DNR by calling 1 (800) 361-4827.

5. If washing with water is the chosen option, runoff should be containerized and/or routed to a sanitary sewer with the knowledge and approval of the wastewater treatment plant operator. Treatment chemicals and agents should not be used except under special circumstances. If a fire department has questions as to the proper application of such agents, the DNR may be contacted twenty-four hours a day at (573) 634-2436 for technical assistance. As stated in Item 3, water contaminated with petroleum may be required by law to be tested and disposed as a hazardous waste.

According to Missouri Hazardous Waste Management Laws and Regulations, the responsibility for proper disposal of a hazardous waste is that of the owner of that waste (who could be the spiller, the owner of the shipment, or the owner of a facility where the spill occurred). Fire departments should exercise CAUTION; if the material is flushed to a waterway during a response, the fire department may be legally considered as a party responsible for the release.

Not all fire departments have financial resources to maintain stocks of absorbent materials, containers, and other related response equipment. Access to vacuum trucks, heavy equipment, and other necessary services may, likewise, be difficult for some jurisdictions to obtain. It is recommended that a fire department's contingency planning include identification of supply and service sources in order to be prepared for these types of releases.

Every response method has its own inherent advantages and disadvantages. Specific response methods must be evaluated and initiated on a case-by-case basis.

Questions about this guidance may be directed to the DNR, Environmental Emergency Response Section at (573) 526-3349 (non-emergency), or (573) 634-2436 (Emergency), or to the DPS, Division of Fire Safety at (573) 751-2930 (non-emergency).